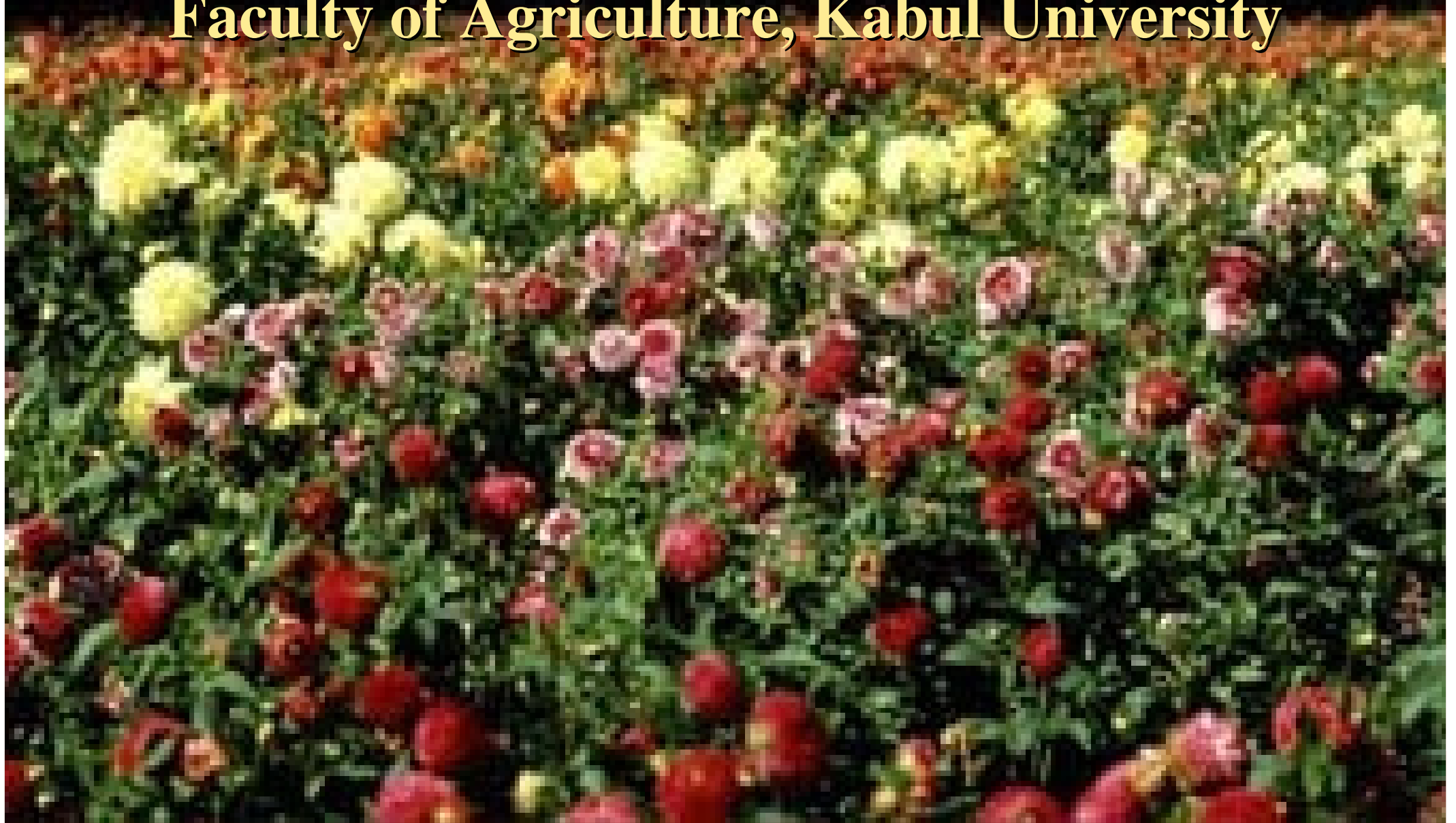


The Medicinal Flora of Afghanistan

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INTRODUCTION

Topography is the key factor with the greatest influence on Afghanistan's natural vegetation.

The Hindu-Kush Mountain Range bisects Afghanistan from east to west. In the northeast, there are the steep high peaks of the Wakhan Corridor at an altitude of 5500 to 7500 meters above sea level.

In the east–central and central Afghanistan, the mountains broaden spurs fanning to the north and south at between 3000 & 4000 m. To the west, they end in the Safed-Koh range north of Herat and close to the north-western boarder at some 1100 m. Due to the above physical features of the country, the following agro-ecological zones are distinguished:

AGRO-ECOLOGICAL ZONES

1. Wakhan
2. Badakhshan
3. Central Mountains
4. Eastern Mountains
5. Southern Mountains & Foothills
6. Northern Mountains and Foothills
7. Western Stony and South-western Sandy Deserts.

According to the studies of Prof. Nediakove (1975), UNDP/FAO (1981) and World Conservation Monitoring Center (1988), the natural vegetation of a large part of Afghanistan is woodland and forest, which can be classified into horizontal and vertical zones.

HORIZONTAL ZONATION OF AFGHANISTAN'S NATURAL VEGETATION:

- The vegetation occurs on areas of northern foothills and the deserts are dominated by
- *Colligonum spp*
- *Holoxylon spp*
- *Aristida penata*
- *Carex physodes*
- *Artemisia spp*
- *Stelaria lessertii*, etc

THE MOST IMPORTANT MEDICINAL FLORA ARE AS FOLLOWS:

- *Ferula asa-foetida* (Asafoetide)
- *Glycerrhiza glabra* (liquorice)
- *Carum carvi* (caraway)
- *Artemisia herba* (Artemisia)
- *Achila santolina*
- *Malva silvestris* (Malva)
- *Sysimbrium officinalis* (sysimbre)

- *Cichorium intybus* (chicory)
- *Alhagi camelorum* ()
- *Citrullus colodcynthis* (colocynth)
- *Berberis vulgaris* (Berberis)
- *Thymus spp* (thymus)
- *Carum capticum*()
- *Anethum graveolens* (Dill)
- *Sesamum indicum* (sesame)
- *Linumasita lisimum* (Lin)
- *Brassica spp* (Colza)
- *Ficus carica* (Fig)

On dry areas of the western part of Afghanistan, where the average annual precipitation is more than 150 mm, the flora are dominated by *Haloxilon spp*, *Salsola spp*, etc.

Where the average annual precipitation is less than 150mm, the vegetation is dominated by *Zygophylum spp*.

Here the most common medicinal flora are:

- *Plantago Ovata* (Hyssop)
- *Citrullus colocynthis* (Colocynth)
- *Artemisia herba* (Artemisia)
- *Alhagi camelorium* ()
- *Cichorium intybus* (chicory)
- *Carum carvi* (cumin)
- *Plantago psyllium* (plantain)

- *Carum capticum* ()
- *Pegonum harmala* ()
- *Nicatiana tobacum* (Tobacco)
- *Mentha peperita* (Menth)
- *Hyosyamus muticus* (Henlane)
- *Pistacia khinjuk* (khinjuk)
- *Ziziphus vulgaris* (Jujub)
- *Crecus spp* (Saffron)

The steppes (in the south, north and south-west) are dominated by vegetation of *Astragalus spp* and *Carex spp* also occur.

Vertical Zonation of Afghanistan's Natural Vegetation

The vertical zones of Afghanistan's natural vegetation starts from 850m above sea level, extending to 3300m in the south-east high lands of Paktia and Kunar provinces, with variable annual precipitation in the range of 320 mm to 1100 mm.

The most important medicinal flora are:

- *Artemisia herba alba* (Artemisia)
- *Artemisia absinthium* (Mustared)
- *Ferula asa-foetida* (Asafoetide)
- *Glycerrrhiza glabra* (liqourice)
- *Plantaga ovata* (Hyssop)
- *Sysimbrium officinalis* (sysimbre)
- *Foeniculum volgare* (fennel)

- *Carum carvi* (cumin)
- *Carum capticum* ()
- *Ceratonia longa* (carob)
- *Ricinus cummunis* (Ricin)
- *Citrulus colosynthis* (colocynth)
- *Alkana tinctoria* (alkanet)
- *Cassia fistuda* (pudding pipe)
- *Thymus spp* (thymus)
- *Plantago Lacinitum* (plantain)


- *Zingiber officinal* ()
- *Atropa belladonna* (blondon)
- *Narcissus tozeta* (polyanthus)

Pistacea khenjuk vegetation occur on the higher slopes of the Hindu Kosh between 1200m and 1800m. This species mixed with *pistacea atlantica* and *Cercis griffthii* are found in the Kabul/Logar Valley.

The most common medicinal flora of the central part of Afghanistan are as follows:

- *Glycerhiza glabra* (liquorice)
- *Furmaria officinalis* (fumitory)
- *Carum carvi* (cumin)
- *Alhaji camelorum* ()
- *Achillea millefolium* (milfoil)
- *Plantago psyllium* (plantain)
- *Foeniculum vulgare* (fennel)
- *Artemisia herba* (artemisia)
- *Coriandrum sativam* ()
- *Mentha piperita* (Mint)

- *Cannabis sativa* (Hemp)
- *Nigella Sativa* (Nigella)
- *Celtis occidentalis* (lote Tree)
- *Ephedra spp* (Ephedra)
- *Rosa centifolia* (rose)
- *Stataurea lemonium* (statais)
- *Berberis spp* (berberis)
- *Echium amoenum* (Bugloss)



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